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<u>Claims</u>

- 1. Harvested mammary secretion product comprising an antibody specific for an antigen, said mammary secretion product obtainable by a method comprising
- hyperimmunizing a farm-animal for said antigen and
- 5 administering said antigen to a mammary gland and/or a supramammary lymph node of said animal and
 - harvesting said mammary secretion product from said farm-animal.
- 2. Secretion product according to claim 1, wherein hyperimmunizing comprises administering said antigen to an airway of said animal.
 - 3. Secretion product according to claim 2, wherein said antigen is administered intra-nasally.
- 4. Secretion product according to any one of claims 1-3, wherein said mammary secretion product is milk.
 - 5. Secretion product according to any one of claims 1-4, wherein said antibody is an IgA antibody.
 - 6. Secretion product according to anyone of claims 1-5, further comprising boosting an immune response to said antigen in said animal.
- 7. Secretion product according to claim 6, wherein said boosting is
 25 performed by administering said antigen to an airway, a mammary gland
 and/or a supramammary lymph node of said animal.

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8. A mammary secretion product obtainable by a method according to any one of claims 1-7.

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9. An antibody composition derived from a mammary secretion product according to any one of claims 1-8.

10. Use of a mammary secretion product according to any one of claims 1-8 or an antibody composition according to claim 9, for the preparation of a medicament.

11. A food product comprising a mammary secretion product according to anyone of claim 1-8 or an antibody composition according to claim 9.

12. A method for the treatment of microbial infection of a mammary gland in an animal comprising administering to said animal an antigen such that a high immune response is obtained and administering said antigen to a mammary gland and/or a supramammary lymph node of said animal, wherein said antigen comprises at least a part of said microbe or a functional derivative and/or analogue thereof.

13. A method according to claim 12, wherein said animal is suffering from or at risk of suffering from mastitis.

14. Use of an antigen for the preparation of a medicament for the treatment of a microbial infection of a mammary gland, wherein said medicament comprises a composition for airway administration of said antigen and a composition for mammary gland and/or supramammary lymph node administration of said antigen.

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- 15. Use according to claim 14, wherein said microbial infection causes mastitis.
- 16. Mature milk obtainable from a mammal, comprising an antigen-specific antibody in a quantity of at least 50 percent of the average quantity of said antigen-specific antibody obtainable in colostrum from said mammal, wherein said colostrum is obtained after immunization of said mammal against said antigen.
- 10 17. Mature milk according to claim 16, wherein said antibody consists of IgA.
 - 18. Mature milk according to claim 16 or 17, wherein said percentage is at least 100 percent.

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